

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2761	(726/4-7).CCLS.	US-PGPUB; USPAT	OR	OFF	2007/07/05 12:36
S2	1004	(726/4-7).CCLS.	USPAT	OR	OFF	2007/07/05 13:15
S3	6	security adj level with (login log adj in ) near4 (count attempt number times)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 13:19
S4	192	S1 and (login log adj in ) near4 (count attempt number times)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 13:20
S5	35	S1 and (login log adj in )near4 (tries attempt) near4 (count number times)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:40
S6	0	(security near4 (level condition) with (last near4 (login log adj in)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:46
S7	401	((last near4 (login log adj in)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:34
S8	26	((last near4 (login log adj in))) and S1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:48
S9	1	("5,606,663").PN.	US-PGPUB; USPAT	OR	OFF	2007/07/05 14:38
S10	0	furukawa-akira.in. and (log adj in). ti.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:39

2

## EAST Search History

S11	0	akira.in. and (log adj in).ti.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:39
S12	0	furukawa.in. and (log adj in).ti.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:39
S13	1	furukawa.in. and (log-in).ti.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:40
S14	5	S1 and (log-in)near4 (tries attempt) near4 (count number times)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:40
S15	1	(security near4 (level condition) with (last near4 (login log-in)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 16:08
S16	5	(security near4 (level condition) same (last near4 (login log-in)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 14:46
S17	1	((last near4 (log-in))) and S1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 15:04
S18	141	(several plurality different multiple) near3 (login log adj in log-in) near4 (procedure method operation)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 15:06
S19	0	("7079652").URPN.	USPAT	OR	ON	2007/07/05 16:02

## EAST Search History

S20	13	("20020083323"   "4816654"   "5289540"   "5532690"   "5544321"   "5757916"   "5799082"   "6161185"   "6308273"   "6317500"   "6609198"   "6614349"   "6778837").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/07/05 16:02
S21	5	(security near4 (level condition) same (last near4 (login log-in)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 16:48
S22	162	(determin\$3 ascertain\$3) near4 (log adj in log-in login) near4 (procedure mode method test)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/05 16:49



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1 [Cryptography and data security](#)

Dorothy Elizabeth Robling Denning  
January 1982 Book

**Publisher:** Addison-Wesley Longman Publishing Co., Inc.

Full text available: pdf(19.47 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

**From the Preface (See Front Matter for full Preface)**

Electronic computers have evolved from exiguous experimental enterprises in the 1940s to prolific practical data processing systems in the 1980s. As we have come to rely on these systems to process and store data, we have also come to wonder about their ability to protect valuable data.

Data security is the science and study of methods of protecting data in computer and communication systems from unauthorized disclosure ...

2 [On countering online dictionary attacks with login histories and humans-in-the-loop](#)



Paul C. Van Oorschot, Stuart Stubblebine

August 2006 **ACM Transactions on Information and System Security (TISSEC)**, Volume 9  
Issue 3

**Publisher:** ACM Press

Full text available: pdf(305.97 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Automated Turing Tests (ATTs), also known as human-in-the-loop techniques, were recently employed in a login protocol by Pinkas and Sander (2002) to protect against online password-guessing attacks. We present modifications providing a new history-based login protocol with ATTs, which uses failed-login counts. Analysis indicates that the new protocol offers opportunities for improved security and user friendliness (fewer ATTs to legitimate users) and greater flexibility (e.g., allowing protocol ...

**Keywords:** Mandatory human participation schemes, online dictionary attacks, password protocols, relay attack, usable security

3 [Securing a global village and its resources: baseline security for interconnected signaling system #7 telecommunications networks](#)



Hank M. Kluepfel

December 1993 **Proceedings of the 1st ACM conference on Computer and communications security CCS '93**

**Publisher:** ACM Press

Full text available: pdf(1.19 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The resulting national focus on Network Integrity issues, spawned the development of an industry commitment to affect and realize a minimum security baseline for interconnected SS7 networks. In addition the affected carriers in those outage have accelerated their pursuit of secure solutions to today's intelligent networking.[2]This paper will focus on the development of the baseline and the current effort to take the baseline into national, e.g., National Ins ...

#### 4 The multics system: an examination of its structure

Elliott I. Organick

January 1972 Book

**Publisher:** MIT Press

Full text available: pdf(23.94 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [cited by](#), [index terms](#)

This volume provides an overview of the Multics system developed at M.I.T.--a time-shared, general purpose utility like system with third-generation software. The advantage that this new system has over its predecessors lies in its expanded capacity to manipulate and file information on several levels and to police and control access to data in its various files. On the invitation of M.I.T.'s Project MAC, Elliott Organick developed over a period of years an explanation of the workings, concep ...

#### 5 Integrating security in a large distributed system



M. Satyanarayanan

August 1989 **ACM Transactions on Computer Systems (TOCS)**, Volume 7 Issue 3

**Publisher:** ACM Press

Full text available: pdf(2.90 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Andrew is a distributed computing environment that is a synthesis of the personal computing and timesharing paradigms. When mature, it is expected to encompass over 5,000 workstations spanning the Carnegie Mellon University campus. This paper examines the security issues that arise in such an environment and describes the mechanisms that have been developed to address them. These mechanisms include the logical and physical separation of servers and clients, support for secure communication ...

#### 6 Password management, mnemonics, and mother's maiden names: Passpet: convenient password management and phishing protection



Ka-Ping Yee, Krigen Sitaker

July 2006 **Proceedings of the second symposium on Usable privacy and security SOUPS '06**

**Publisher:** ACM Press

Full text available: pdf(479.35 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We describe Passpet, a tool that improves both the convenience and security of website logins through a combination of techniques. Password hashing helps users manage multiple accounts by turning a single memorized password into a different password for each account. User-assigned site labels (petnames) help users securely identify sites in the face of determined attempts at impersonation (phishing). Password-strengthening measures defend against dictionary attacks. Customizing the user interfac ...

#### 7 Identity authentication based on keystroke latencies



Rick Joyce, Gopal Gupta

February 1990 **Communications of the ACM**, Volume 33 Issue 2

**Publisher:** ACM Press

Full text available: pdf(823.00 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

The variables that help make a handwritten signature a unique human identifier also provide a unique digital signature in the form of a stream of latency periods between keystrokes. This article describes a method of verifying the identity of a user based on such a digital signature, and reports results from trial usage of the system.

8 Authentication and authorization: Securing passwords against dictionary attacks



Benny Pinkas, Tomas Sander

November 2002 **Proceedings of the 9th ACM conference on Computer and communications security CCS '02**

**Publisher:** ACM Press

Full text available: pdf(216.72 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The use of passwords is a major point of vulnerability in computer security, as passwords are often easy to guess by automated programs running dictionary attacks. Passwords remain the most widely used authentication method despite their well-known security weaknesses. User authentication is clearly a practical problem. From the perspective of a service provider this problem needs to be solved within real-world constraints such as the available hardware and software infrastructures. From a user' ...

9 Configuration management & security: AMNESIA: analysis and monitoring for NEutralizing SQL-injection attacks



William G. J. Halfond, Alessandro Orso

November 2005 **Proceedings of the 20th IEEE/ACM international Conference on Automated software engineering ASE '05**

**Publisher:** ACM Press

Full text available: pdf(315.42 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The use of web applications has become increasingly popular in our routine activities, such as reading the news, paying bills, and shopping on-line. As the availability of these services grows, we are witnessing an increase in the number and sophistication of attacks that target them. In particular, SQL injection, a class of code-injection attacks in which specially crafted input strings result in illegal queries to a database, has become one of the most serious threats to web applications. In t ...

**Keywords:** SQL injection, runtime monitoring, static analysis

10 Password hardening based on keystroke dynamics



Fabian Monroe, Michael K. Reiter, Susanne Wetzels

November 1999 **Proceedings of the 6th ACM conference on Computer and communications security CCS '99**

**Publisher:** ACM Press

Full text available: pdf(1.01 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a novel approach to improving the security of passwords. In our approach, the legitimate user's typing patterns (e.g., durations of keystrokes, and latencies between keystrokes) are combined with the user's password to generate a hardened password that is convincingly more secure than conventional passwords against both online and offline attackers. In addition, our scheme automatically adapts to gradual changes in a user's

typing patterns while maintaining the s ...

11 Password management, mnemonics, and mother's maiden names: Password management strategies for online accounts

Shirley Gaw, Edward W. Felten

July 2006 **Proceedings of the second symposium on Usable privacy and security SOUPS '06**

**Publisher:** ACM Press

Full text available:  pdf(190.59 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Given the widespread use of password authentication in online correspondence, subscription services, and shopping, there is growing concern about identity theft. When people reuse their passwords across multiple accounts, they increase their vulnerability; compromising one password can help an attacker take over several accounts. Our study of 49 undergraduates quantifies how many passwords they had and how often they reused these passwords. The majority of users had three or fewer passwords and ...


**Keywords:** password, password management, password reuse, security, survey, user behavior

12 A taxonomy of computer program security flaws

Carl E. Landwehr, Alan R. Bull, John P. McDermott, William S. Choi

September 1994 **ACM Computing Surveys (CSUR)**, Volume 26 Issue 3

**Publisher:** ACM Press

Full text available:  pdf(3.81 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

An organized record of actual flaws can be useful to computer system designers, programmers, analysts, administrators, and users. This survey provides a taxonomy for computer program security flaws, with an Appendix that documents 50 actual security flaws. These flaws have all been described previously in the open literature, but in widely separated places. For those new to the field of computer security, they provide a good introduction to the characteristics of security flaws and how they ...

**Keywords:** error/defect classification, security flaw, taxonomy

13 Protection and the control of information sharing in multics

Jerome H. Saltzer

July 1974 **Communications of the ACM**, Volume 17 Issue 7


**Publisher:** ACM Press

Full text available:  pdf(1.75 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The design of mechanisms to control the sharing of information in the Multics system is described. Five design principles help provide insight into the tradeoffs among different possible designs. The key mechanisms described include access control lists, hierarchical control of access specifications, identification and authentication of users, and primary memory protection. The paper ends with a discussion of several known weaknesses in the current protection mechanism design.

**Keywords:** Multics, access control, authentication, computer utilities, descriptors, privacy, proprietary programs, protected subsystems, protection, security, time-sharing systems, virtual memory


14 A new model of security for distributed systems

 Wm A. Wulf, Chenxi Wang, Darrell Kienzle  
September 1996 **Proceedings of the 1996 workshop on New security paradigms NSPW '96**

**Publisher:** ACM Press

Full text available:  [pdf\(1.10 MB\)](#) Additional Information: [full citation](#), [references](#), [citings](#), [index terms](#)


15 Level II technical support in a distributed computing environment

 Tim Leehane  
September 1996 **Proceedings of the 24th annual ACM SIGUCCS conference on User services SIGUCCS '96**


**Publisher:** ACM Press

Full text available:  [pdf\(5.73 MB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)

16 User authentication through keystroke dynamics

 Francesco Bergadano, Daniele Gunetti, Claudia Picardi  
November 2002 **ACM Transactions on Information and System Security (TISSEC)**,  
Volume 5 Issue 4

**Publisher:** ACM Press

Full text available:  [pdf\(351.02 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#), [review](#)

Unlike other access control systems based on biometric features, keystroke analysis has not led to techniques providing an acceptable level of accuracy. The reason is probably the intrinsic variability of typing dynamics, versus other---very stable---biometric characteristics, such as face or fingerprint patterns. In this paper we present an original measure for keystroke dynamics that limits the instability of this biometric feature. We have tested our approach on 154 individuals, achieving a F ...

**Keywords:** Biometric techniques, keystroke analysis

17 Measurement: A high-level programming environment for packet trace anonymization and transformation

 Ruoming Pang, Vern Paxson  
August 2003 **Proceedings of the 2003 conference on Applications, technologies, architectures, and protocols for computer communications SIGCOMM '03**

**Publisher:** ACM Press

Full text available:  [pdf\(251.27 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citings](#), [index terms](#)

Packet traces of operational Internet traffic are invaluable to network research, but public sharing of such traces is severely limited by the need to first remove all sensitive information. Current trace anonymization technology leaves only the packet headers intact, completely stripping the contents; to our knowledge, there are no publicly available traces of any significant size that contain packet payloads. We describe a new approach to transform and anonymize packet traces. Our tool provide ...


**Keywords:** anonymization, internet, measurement, network intrusion detection, packet trace, privacy, transformation

18 Notable computer networks



 John S. Quarterman, Josiah C. Hoskins  
October 1986 **Communications of the ACM**, Volume 29 Issue 10

**Publisher:** ACM Press


Full text available:  pdf(4.66 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Computer networks are becoming more numerous and more diverse. Collectively, they constitute a worldwide metanetwork.

## 19 [Distributed operating systems](#)


 Andrew S. Tanenbaum, Robbert Van Renesse  
December 1985 **ACM Computing Surveys (CSUR)**, Volume 17 Issue 4

**Publisher:** ACM Press


Full text available:  pdf(5.49 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Distributed operating systems have many aspects in common with centralized ones, but they also differ in certain ways. This paper is intended as an introduction to distributed operating systems, and especially to current university research about them. After a discussion of what constitutes a distributed operating system and how it is distinguished from a computer network, various key design issues are discussed. Then several examples of current research projects are examined in some detail ...

## 20 [4.2BSD and 4.3BSD as examples of the UNIX system](#)

 John S. Quarterman, Abraham Silberschatz, James L. Peterson  
December 1985 **ACM Computing Surveys (CSUR)**, Volume 17 Issue 4

**Publisher:** ACM Press

Full text available:  pdf(4.07 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

This paper presents an in-depth examination of the 4.2 Berkeley Software Distribution, Virtual VAX-11 Version (4.2BSD), which is a version of the UNIX Time-Sharing System. There are notes throughout on 4.3BSD, the forthcoming system from the University of California at Berkeley. We trace the historical development of the UNIX system from its conception in 1969 until today, and describe the design principles that have guided this development. We then present the internal data structures and ...

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